

**RECEIVED
CENTRAL FAX CENTER****FEB 05 2007****SIEMENS****PATENT
Attorney Docket No. 2004P14536US****IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:

Inventor:	R. Martin)		
)	Group Art Unit:	3663
Serial No.:	10/669,862)		
)	Examiner:	E. Pipala
Filed:	September 24, 2003)		

Title: TURBINE COMPONENT TRACKING SYSTEM

**Commissioner For Patents
P.O. Box 1450
Alexandria, VA 22313-1450**

Sir:

**DECLARATION OF RICHARD MARTIN
UNDER 37 CFR 1.132**

1. I, Richard Martin, a citizen of the United States, hereby declare and state as follows:

2. I have been continuously employed by the Assignee of the above referenced application, Siemens Power Generation, Inc and its predecessors, Westinghouse Electric Corporation and Siemens Westinghouse Power Corporation, since 1988. I am currently a Field Service Engineer in the Operating Plant Services division, and primarily work in the technical field of nuclear turbine-generator field service.

3. I received a Bachelors of Science degree in Mechanical Engineering in 1987 from The Pennsylvania State University. My combined academic and commercial experience in the field of power generation totals over 20 years.

4. I understand that the USPTO Examiner has rejected certain claims in the above-cited application on the basis that those claims are rendered obvious by the teaching of Herron

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(US Pat. No. 6,343,251) in view of Henry (US Pat. No. 6,845,306). I understand that the Examiner's position is that it would have been obvious to modify Herron by selecting the embedded computer chip of Henry and then further modifying the Herron/Henry combination to arrange the computer chip on the turbine component surface.

5. I respectfully submit that Herron is directed toward an individualized maintenance schedule for a turbine, and does not disclose or suggest marking turbine components or placing the marked turbine components in a plurality of turbines. See e.g. the Background section of my application page 2 lines 20-22. As further explained in the Background section of my application, if individualized turbine maintenance schedules are used, a problem arises if an individual turbine component is used on more than one turbine, and another problem arises if a component type is not identical with another similar component type, and yet another problem arises if some individual components are repaired or replaced while other individual component are not repaired or replaced within the turbine. My invention resolves these problems. Herron's invention does not. Moreover, Herron's invention is wholly unequipped to address or resolve these problems. In fact, for Herron's invention to do so, would require it to vastly change its principle of operation (e.g. the controller 14, on-site monitor 16, remote database 18, among other features would have to be completely redesigned and overhauled to enable it to track individual components).

6. Moreover, Herron describes a more precise method (compared to traditional methods of applying somewhat generic service factors subject to individual technicians judgement) of determining both starts based and hours based maintenance. My invention takes the concepts of Herron to a very different level in two significant ways. First, tracking is applied at the individual component level. This allows maintaining a gauge of sorts for specific but high value components such as turbine vanes, turbine blades, fuel nozzles, combustor cans, transitions, ring segments and other hot gas path and rotor components. Tracking this information on a component level allows larger fleet owners who have significant individual component inventories to better match up sets of individual components that are in similar stages of their life cycle avoiding the possibility of mating new parts with parts near the end of their useful life. This allows components to be evaluated simply on their operational history and eliminates present techniques such as destructive testing and metallurgical sampling to determine remaining material life and repair feasibility. Second, tracking individual components would still have to

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be performed independently using traditional and less accurate service factor techniques without the benefit of the more exotic service factor calculations detailed in Herron. Individual component tracking has additional benefits to match up sets of components that are at similar points in their life cycle for owners of large quantities of parts such as major utilities.

7. I respectfully submit that Henry logically embeds its computer chip within the LRU components so that the delicate computer chip to withstand the extremely high turbine temperature within which many of the turbine components operate, which can be in excess of 2,700°F. If Henry's computer chip was applied to the surface of the turbine component it would incinerate and therefore could not be used for the purposes on my claimed invention.

8. Moreover, Henry describes a relatively exotic way to track systems with an exotic marker and not individual discrete components such as turbine vanes, turbine blades, fuel nozzles, combustor cans, transitions, ring segments and other hot gas path and rotor components. Henry describes a method to track LRU's of aero type engines, the claimed invention is more granular and on more of the molecular level of tracking individual discrete components. In addition to the issues already made of using a microchip in hot, corrosive and harsh turbine hot gas path environments, individual component tracking requires a robust but simpler marking method such as number stamping or bumpy bar code. The claimed invention differs from Henry in that it marks the part with a simpler method and tracks every critical component and not a system such as the whole engine or a LRU.

9. Accordingly, it is my opinion that it the maintenance scheduling system disclosed in Herron would have to be completely redesigned and overhauled to enable it to track individual components, and that the Henry computer chip could not be used with my claimed invention.

10. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or of any patent issuing there from.

Dated: January 24, 2007

By: _____



Richard Martin